1. (Currently Amended) A photoreactive device comprising:

a semiconductor having a conduction band with a potential and being capable of producing electrons under the irradiation of light on said semiconductor; and

an oxidation-reduction material having a redox potential being positive compared with said potential of said conduction band,

wherein said electrons produced by said semiconductor are supplied into said oxidation-reduction material under the irradiation of light so that said oxidation-reduction material is reduced with the crystalline structure of said material converted for storing said electrons in said material, and

wherein said oxidation-reduction material is reduced in the presence of a cation.

2. (Cancelled)

3. (Original) The device of claim 1, wherein said oxidation-reduction material is an electrochromic material.

4. (Original) The device of claim 1, wherein said oxidation-reduction material is an oxide semiconductor which may be reduced to convert the crystalline structure of said oxide semiconductor to tungsten bronze structure.

5. (Original) The device of claim 1, comprising a substrate, a layer for storing electrons made of said oxidation-reduction material on said substrate, and a semiconductor layer made of said semiconductor on said substrate.

6. (Original) The device of claim 1, comprising a substrate, a layer for storing electrons made of said oxidation-reduction material on said substrate, and a porous semiconductor layer

made of said semiconductor on said layer for storing electrons.

7. (Original) The device of claim 1, comprising a formed body made from powder of said oxidation-reduction material and powder of said semiconductor.

8. (Original) The device of claim 2, comprising a conductor of a cation.

9. (Original) The device of claim 8, wherein said conductor is substantially insoluble in water.

10. (Original) The device of claim 1 for use in gaseous phase.

11. (Original) The device of claim 1, wherein the reflectance to visible light of said oxidation-reduction material may be changed when light is irradiated on said device.

12. (Original) The device of claim 1 for detecting light intensity of light irradiated on said device based on the change of a property of said oxidation-reduction material.

13. (Original) The device of claim 1 for detecting a humidity based on the change of a property of said oxidation-reduction material depending on said humidity.

14. (Original) A translucent member comprising a main body made of a translucent material and said photoreactive device according to claim 1 fixed to said main body.

15. (Original) The member of claim 14, wherein said member is a window.

16. (Original) An ornament comprising said photoreactive device according to claim 1.

claims 17-48 has been cancelled